



Content Types Subjects

English



Athens Authentication Point

**Welcome!**

To use the personalized features of this site, please **log in** or **register**.

If you have forgotten your username or password, we can **help**.

**My SpringerLink**

Marked Items

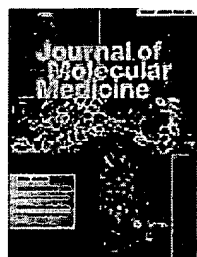
Alerts

Order History

**Saved Items**

All

Favorites

**Journal Article**

The clinical significance of prostaglandins and thromboxane as mediators of septic shock

Journal Journal of Molecular Medicine

Publisher Springer Berlin / Heidelberg

ISSN 0946-2716 (Print)  
1432-1440 (Online)

Subject Biomedical and Life Sciences and Medicine

Issue Volume 65, Number 2 / January, 1987

Category Originalien

DOI 10.1007/BF01745474

Pages 61-68

Online Friday, June 17, 2005

**Add to marked items**

Add to saved items

Recommend this article

W. Oettinger<sup>1</sup>, D. Berger<sup>1</sup> and  
H. G. Beger<sup>1</sup>

(1) Abteilung für Allgemeine  
Chirurgie, Universität Ulm,  
Germany

**Received:**15 April 1986 **Revised:**16 May 1986 **Accepted:**

24 July 1986

**Summary** An evaluation was made of 106 surgical patients with Gram-negative septic shock, both for clinical criteria as well as the biochemical mediators endotoxin, prostaglandin  $F_{2\alpha}$ , prostaglandin  $I_2$  (prostacyclin), and thromboxane. These data were correlated to various defined shock phases, functional data of vital organs, and clinical outcome. Patients underwent

**Find****more options**
 

- ☒ Within this issue  
☐ Within this journal  
☐ Within all content

**Export this article**

Export this article as RIS|Text

**Text****PDF**

The size of this document is 984 kilobytes. Although it may be a lengthier download, this is the most authoritative online format.

Open: Entire document

**Referenced by**

7 newer articles

1. Berger, D. (1995) Incidence and pathophysiological relevance of postoperative

invasive organ function monitoring and the usual laboratory tests of intensive care. Prostaglandins and thromboxane were measured radioimmunologically, endotoxin by the limulus amebocyte lysate test. Endotoxin proved to be a more accurate predictor of severe sepsis than did positive blood cultures. Endotoxin as well as prostaglandins and thromboxane are predominantly released in early shock phases, appearing in plasma concentrations, which correlate with the severity of organ failure. Sepsis-induced respiratory failure coincides with a deterioration of pulmonary prostaglandin inactivation, which contributes to the release mechanism. High systemic prostacyclin activity benefits the patients' organ functions and clinical outcomes, while a predominance of thromboxane seems to effect the opposite. Transpulmonary-thromboxane gradients correlate significantly with pulmonary hypertension in the early phases of septic shock.

**Key words** Septic shock - Endotoxin - Eicosanoids - Prostaglandins - Thromboxane

**Abbreviations** AaDO<sub>2</sub> Alveolar-arterial O<sub>2</sub> gradient - AAS Arachidonic acid system - ARDS Acute respiratory distress syndrome - CI Cardiac index - CrCl Creatinine clearance - DIC Disseminated intravascular coagulation - EU Endotoxin unit - EU/ml Endotoxin unit per milliliter - HYPER Hyperdynamic shock - HYPO Hypodynamic septic shock - KH<sub>2</sub>PGF<sub>2α</sub> 13,14-Dihydro-15-Keto-PGF<sub>2α</sub> - 6-K-

endotoxemia. *FEMS Immunology and Medical Microbiology* 11(4)

[CrossRef]

2. Kuwagata, Yasuyuki (2003) Effect of Ibuprofen on Interleukin-1??-Induced Abnormalities in Hemodynamics and Oxygen Metabolism in Rabbits. *Shock* [CrossRef]
3. Wanecek, Michael (1997) The endothelin receptor antagonist, bosentan, in combination with the cyclooxygenase inhibitor, diclofenac, counteracts pulmonary hypertension in porcine endotoxin shock. *Critical Care Medicine* [CrossRef]
4. Bulger, Eileen M. (2000) Lipid mediators in the pathophysiology of critical illness. *Critical Care Medicine* [CrossRef]
5. Weitzberg, Eddie (1995) Effect of combined nitric oxide inhalation and N sup G-nitro-L-arginine infusion in porcine endotoxin shock. *Critical Care Medicine* [CrossRef]
6. Strohmenger, Hans-Ulrich (1995) Concentrations of prolactin and prostaglandins during and after cardiopulmonary resuscitation. *Critical Care Medicine* [CrossRef]
7. Post, M. J. (1989) In vivo anaphylaxis in the rat: Effects of phosphodiesterase inhibitors. *Agents and Actions* 26(1-2) [CrossRef]

PGF<sub>1α</sub> 6-Keto-PGF<sub>1α</sub> - LPS  
Lipopolysaccharide - MABP Mean  
arterial blood pressure - Norm  
Normal values - PG  
Prostaglandin - pg/ml Picogram  
per milliliter - PGI<sub>2</sub> Prostacyclin  
- PVR Pulmonary vascular  
resistance - SVR Systemic  
vascular resistance - TX  
Thromboxane

---

References secured to subscribers.

Frequently asked questions | General information on journals and books |  
Send us your feedback

© Springer. Part of Springer Science+Business Media

Privacy, Disclaimer, Terms and Conditions, © Copyright Information

Remote Address: 70.224.99.102 • Server: mpweb04  
HTTP User Agent: Mozilla/4.0 (compatible; MSIE 6.0; Windows NT 5.1; SV1; .NET CLR 1.0.3705; .NET  
CLR 1.1.4322)